

Claim 25 (New)

B²
Apparatus for the placement and fixing of a sheet of filaments for the production of scrims as described in claim 11 wherein said station for production glues said fixing elements onto said filament sheet section.

Claim 26 (New)

Apparatus for the placement and fixing of a sheet of filaments for the production of scrims as described in claim 11 wherein said station for production freezes said fixing elements onto said filament sheet section.

REMARKS

In accordance with MPEP § 608.01, Applicant has previously submitted an English translation of the German-language application, and a request that the English translation be used as the copy for examination purposes in the Patent Office. The claims set forth in the English translation do not conform to United States practice. Applicant respectfully requests entry of the foregoing Second Preliminary Amendment, which amends the claims in the English translation to conform to United States practice without the introduction of new matter. This Second Preliminary Amendment includes amendments to existing claims 1-20 and the addition of new claims 21-26. In accordance with the recommendation of the Patent Office concerning the timeliness of filing a preliminary amendment set forth in MPEP § 702.01, Applicant respectfully submits this preliminary amendment within three months of filing the above-listed application.

On this date, Applicant has also submitted a signed copy of the declaration, responsive to the Notice to File Missing Parts dated September 6, 2001, a certified copy of the foreign application as required by 35 U.S.C. § 119(b), and an assignment.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert M. Jackson", with a stylized flourish at the end.

Robert M. Jackson
Registration No. 46,796
BURR & FORMAN LLP
Post Office Box 830719
Birmingham, Alabama 35283-0719
(205) 251-3000



Patent Claims (Marked Up Copy)

1. (Amended) Method [Process] for the placement and fixing of a sheet of filaments
[which is at least partially implemented as a dense flat structure, of filaments, lying essentially in a plane,] for the production of scrims having the filament sheet in an associated connecting station, comprising the steps of:
 - a. [wherein the] placing a filament sheet [is placed,] as part of [the] a filament sheet section[s (1)] forming a closed surface, said filament sheet section having two end regions, [and as separate filament sheet sections,] between two conveyor units [(13)] supplying [a] said connecting station;
 - b. [(6), with the filament sheet sections (1) being fixed] fixing said filament sheet section onto said two [the] conveyor units at each of both end regions, with a fixing element [(2, 3)] attached to each of both end regions, [and the interval] said [of the] fixing elements [(2, 3) of a filament sheet section (1) relative to the conveyor units (13)] being spaced apart and in [selected in such a way] relation to said two conveyor units such that said [the] filament sheet section[s (1) are] is, in its [their] fixed state, positioned essentially flat between said two [the] conveyor units [(13)] at least immediately before entering the connecting station[(6)].
2. (Amended) Method for the placement and fixing of a sheet of filaments [Process] as described in [according to] claim 1 [,] wherein said filament sheet section has a longitudinal dimension and said [, for diagonal placement of the filament sheet sections (1), the] fixing elements [(2, 3)] are attached to said filament sheet section at a selectable angle [β] to [the] said longitudinal dimension [lengthwise direction] for diagonal placement of said [the] filament sheet section [(1)], between said conveyor units.
3. (Amended) Method for the placement and fixing of a sheet of filaments as described in [Process according to] claim 1 [or 2,] wherein said fixing step comprises hanging said [the] fixing elements [(2, 3) are hung] on holding needles [8] affixed to said two [the] conveyor units [(13)].
4. (Amended) Method for the placement and fixing of a sheet of filaments as described in [Process according to one of the preceding] claim[s] 1 [to 3,] wherein said [the] fixing

elements [(2, 3)] are produced by embedding [the] each said end region[s of the filament sheet sections (1)] in a rapidly hardening plastic.

5. (Amended) Method for the placement and fixing of a sheet of filaments as described in [Process according to one of the] claim[s] 1 [to 3,] wherein said [the] fixing elements [(2, 3)] are produced by gluing [the] each said end region[s of the filament sheet sections (1)].

6. (Amended) Method for the placement and fixing of a sheet of filaments as described in [Process according to one of the] claim[s] 1 [to 5, wherein the steps are performed as follows at least once] further comprising the steps of:

- a. Attaching [Attachment of] a first fixing element [(2)] to the filament sheet;
- b. Gripping the first fixing element (2) and;
- c. Moving the fixing element (2) a preset distance;
- b[c]. Attaching [Application of] a second fixing element to the filament sheet [(3)] to form a [the] first filament sheet section [(1)] and, simultaneously, [and] a first subsequent fixing element [(2')] for the to a subsequent filament sheet section;
- c[d]. [Cutting off] Severing said [the] first filament sheet section from said subsequent filament sheet section; and
- d. [and hooking or pressing the] Affixing said first and second fixing elements into [the respective] holding needles [(8)] affixed to said two conveyor units [or, conversely, first hooking or pressing and then cutting off the filament sheet section].

7. (Amended) Method for the placement and fixing of a sheet of filaments as described in [Process according to] claim 6 [, wherein] further comprising the step of applying a preset filament sheet tension before affixing said first and second fixing elements to said holding needles[is applied] to said [the] filament sheet section [between the cutting and the hooking and/or pressing in step d].

8. (Amended) Method for the placement and fixing of a sheet of filaments as described in [Process according to one of the preceding] claim 6 [s 1 to 7,] wherein said two conveyor units supply said connecting station at a supply speed and said [the] filament sheet section[s are] is produced in coordination with said [the] supply speed [of the holding needles].

9. (Amended) Method for the placement and fixing of a sheet of filaments as described in any [Process according to one of the preceding] claim 6 [s 1 to 8,] wherein a plurality of [several] filament sheet sections [can be fixed] are affixed on top of one another.
10. (Amended) Method for the placement and fixing of a sheet of filaments as described in any [Process according to one] of [the] claims 1 to 9 [,] wherein said [the] filament sheet section consists of at least 10^4 filaments per cm of width [and/or of heavy tows].
11. (Amended) Apparatus [Device] for the placement and fixing of a sheet of filaments, [which is at least partially implemented as a dense flat structure, of filaments,] lying essentially in a plane, [on conveyor chains (15) continuously supplying a connecting station (6)] for the production of [a]scrims [having the filament sheet] in a connecting station, comprising in combination,
- a. a station for the production of premanufactured filament sheet sections having ends held by fixing elements at a preset interval,
- b. conveyor chains continuously supplying said connecting station,
- c. [with] a placement means [unit (4)] for placement of said [the] filament sheet sections onto said conveyor chains,
- d. [with] a holding [unit] means [(5)] for at least temporary fixing of the placed filament sheet, said holding means being affixed to said conveyor chains in such a way that said filament sheet sections are held in such a way that said filament sheet sections are presented to said connecting station as an essentially flat surface. [and with a connecting station (6), particularly for the performance of the process according to one of the claims 1 to 10, **characterized in that** a unit (7) is provided for the production of premanufactured filament sheet sections (1) which have their ends held by means of fixing elements (2, 3) at a preset interval a and the holding unit (5) is affixed to the conveyor chains (15) in such a way that the filament sheet is held, at least at the connecting station (6), in such a way that it is implemented there as an essentially flat surface.]
12. (Amended) Apparatus for the placement and fixing of a sheet of filaments for the production of scrims as described in [Device according to] claim 11[, characterized in that

the] wherein said holding means [unit (5)] has at least one row of holding needles [(8)] into which said [the] fixing elements [(2, 3)] can be hooked [or pressed].

13. (Amended) Apparatus for the placement and fixing of a sheet of filaments for the production of scrims as described in [Device according to] claim [11 or] 12 [, characterized in that the] wherein said holding needles are of a length such that more than one fixing element can be hooked in on top of one another. [placement unit (4) is a gripper unit (9), which can be moved and lowered, having at least one presser, one gripper (12), and one cutting knife.]
14. (Amended) Apparatus for the placement and fixing of a sheet of filaments for the production of scrims as described in [Device according to] claim 12 [or 13, characterized in that the] wherein said holding needles are curved outwards and [(8)] are located below rows of guide needles [(14) and are curved outwards].
15. (Amended) Apparatus for the placement and fixing of a sheet of filaments for the production of scrims as described in [Device according to one of the claims] claim 11 wherein said holding means has two opposing rows of holding needles, and the interval between said opposing holding needles increases for pretensioning of said filament sheet section [to 14, characterized in that the holding needles (8) are of a length such that multiple fixing elements can be hooked in on top of one another].
16. (Amended) Apparatus for the placement and fixing of a sheet of filaments for the production of scrims as described in [Device according to one of the claims] claim 11 [to 15, characterized in that] wherein said holding means has two opposing rows of guide needles and two opposing rows of holding needles which supply said connecting station synchronously [the interval between opposing holding needles (8) in the movement direction of the conveyor chains increases for pretensioning of the filament sheet sections (1)].
17. (Amended) Apparatus for the placement and fixing of a sheet of filaments for the production of scrims as described in [Device according to one of the claims] claim 11 [to 15, characterized in that the] wherein said placement means comprises a gripper which can be moved and lowered, said gripper having at least one presser, at least one gripper, and at least one cutting knife [holding unit (5) has two opposing rows of guide needles (14) which supply the connecting station synchronously (6) and one row of holding needles (8) each].

18. (Amended) Apparatus for the placement and fixing of a sheet of filaments for the production of scrims as described [Device according to one of the preceding] claim[s] 11 [12 to 17 , characterized in that the] wherein said station for production fuses said fixing elements [(2, 3) are fused, embedded, and/or glued, or frozen] onto said [the] filament sheet section[s] (1) with the unit (7) for production of the filament sheet sections (1)].
19. (Amended) Apparatus for the placement and fixing of a sheet of filaments for the production of scrims as described in [Device according to] claim 11 [18] wherein said filament sheet section has a longitudinal dimension and said [, characterized in that an angle β can be set with which the] fixing elements [(2, 3) can be] are attached to said [the] filament sheet section [(1).] at a selectable angle to said longitudinal dimension for diagonal placement of said filament sheet section.
20. (Amended) Apparatus for the placement and fixing of a sheet of filaments for the production of scrims as described in claim 11 [Device according to one of the claims 11 to 19, characterized in that] further comprising a control unit [(20) is] provided for control of said [the] placement means [(4)] and said [the unit (7)] station for production[of the filament sheet sections (1)].